

February 15, 2013

Summary of Temescal Creek UAA as described in the January 12, 2012 Staff Report (Section 5.6.5. [UAA Analysis Temescal Creek](#) and [CDM UAA Technical Report for Temescal Creek](#))

[Note: The Regional Board staff report UAA sections utilize, in part, technical information presented in the CDM UAA technical report for each of the UAA waters. To the extent feasible, the technical information in the CDM reports was summarized/reiterated in the Regional Board staff reports to minimize the need for readers to review both reports. However, the CDM reports include additional photographs and figures that were not included in the Regional Board staff reports because of file size considerations. These additional photographs/figures are referenced as needed in the Regional Board staff reports, and in the summary below.

To avoid confusion, please note further that in some cases, the reach designations differ slightly between the Regional Board reports and CDM's reports. (Regional Board staff recommended slight revisions of CDM's approach, which was initiated first, based on review of applicable data and information.) References in the summary below to figures in the CDM reports as applicable to specific reaches are based on the Regional Board's reach designation scheme.]

Summary of UAA - Temescal Creek (Continued)

Temescal Creek	REC1	REC2	40 CFR 131.10(g) Factors	
			131.10(g)(2) Low Flow	131.10(g)(4) Hydrologic Modifications
Reach 1a	u	X	USGS data <1 ft. 90% of time contained mostly in low flow channel.	3 miles of concrete trapezoidal channel with low flow channel. 0.5 mile of earthen channel.
Reach 1b	u	u	< 1 ft, very shallow sheet flow across bottom (RB Staff observation).	Concrete vertical wall channel approximately 3 miles in length.
Representative Photographs				
Reach 1a	See Figures TC-3, TC-4, TC-5, TC-13, TC-14, TC-15. TC-16, TC-17 in the UAA Analysis TC. See Figures 2-8, 2-9, 2-10, 2-11 (at junction of 1a and b) in the CDM UAA Technical Report TC.			
Reach 1b	See Figures TC-5 in the UAA Analysis TC. See Figures 2-11 (at junction of 1a and 1b), 2-12, and 2-13 in the CDM UAA Technical Report TC.			

u REC1 and/or REC2 are not attainable uses as determined by UAA.
X Existing or Potential Beneficial Use

Summary of UAA Temescal Creek (Continued)

Nature of Flows	
(see Section 5.6.5 UAA Analysis Temescal Creek: 5.6.5.4 “Flow Conditions and Water Levels”)	
Reach 1a and 1b	Low flows consist of POTW treated effluent (tertiary treated) [these flows expected to decline when POTW taken out of service], urban nuisance flows, and, at times, flows from natural upstream areas.
Water Quality Conditions	
(See Section 5.6.5 UAA Analysis Temescal Creek 5.6.5.7. “Water Quality Conditions” (including Table TC-3)	
Water quality data show that there has been no consistent compliance with REC1 objectives	
Evidence of Use Investigations	
(See Section 5.6.5 UAA Analysis Temescal Creek: 5.6.5.8 “Recreation Use Surveys”	
1. Field Observation: <ul style="list-style-type: none"> a. SWQSTF member surveys: July/August 2006 and July/August 2011. <ul style="list-style-type: none"> i. No REC 1 activity observed. b. Channel maintenance personnel communications <ul style="list-style-type: none"> i. No REC 1 activity reported. Individuals observed walking in Reach 1. (Evident use of channel as a corridor for easy access to adjacent streets) c. Weekly observations made in coordination with remote camera maintenance <ul style="list-style-type: none"> i. No REC 1 activity reported. 	

Summary of UAAs Temescal Creek (Continued)

2. Photographic Evidence:

(Table below excerpted from Section 5.6.5. UAA Analysis Temescal Creek)

Table TC-4 Recreation Use Survey Duration			
Survey Location	Start Date	End Date	Number of Images
Main Street	7/26/05	8/4/05	513
WWTP No. 2	11/1/05	11/1/06	10,653

Note that the camera at Main Street was vandalized beyond repair on the ninth day of operation.

(Table below excerpted from Section 5.6.5 UAA Analysis Temescal Creek)

Table TC-5 Recreational Activity Recorded for the Temescal Creek					
Location	Number of Individuals			Estimated Duration (min)	Type of Activity
	Total	Dry Season	Wet Season		
Main Street	4	4	0	120	Walking and biking
WWTP No. 2	29	20	9	840	Walking and biking

Conclusion: No photographic evidence of REC1 activity within Temescal Creek. There is evidence (31 images) of individuals walking/bicycling in Reach 1a section of the Channel, without water contact (e.g., see Figure TC-17). These individuals appear to be using the channel as a convenient access corridor. Of the 11,166 images recorded at the camera survey locations (Reach 1a), only two suggested any type of water contact; contact was limited to below ankle and short duration (less than 30 minutes) (e.g. see Figure TC-15).

Summary of UAAs Temescal Creek (Continued)

Control Measure Implementation

1) Established Regulatory Framework:

a) MS4 permit (and general statewide industrial/construction permits) for Riverside County.

- i) Requirements include investigations to identify/correction of illicit connections to the MS4 system.
- ii) BMP implementation (including education, street sweeping, LID, etc.)

b) Requirements based on Middle Santa Ana River Pathogen TMDL:

- i) WQBELs based on TMDL WLAs:
 - (1) TMDL/MS4 permit require compliance by specified interim/final deadlines; MS4 permittees on track to achieve compliance
 - (a) Compliance contingent, in part, on approval of recreation standards amendments
- ii) Develop and implement bacteria indicator urban source reduction plans:
 - (1) Monitoring program (ongoing implementation)
 - (2) Urban source evaluation plan (ongoing implementation)
 - (3) Comprehensive Bacteria Reduction Plan (CBRP): (ongoing implementation)
 - (a) Implement non-structural BMP activities: conduct Tier 1 source evaluation (including microbial DNA source tracking for human sources)
 - (b) Prioritize MS4 drainage areas based on findings of Tier 1 source evaluations
 - (c) Identify alternatives for reducing or eliminating controllable urban flow or bacterial indicator sources from MS4 outfalls
 - (d) Identify structural BMP solutions, where non-structural BMPs are insufficient
 - (e) Complete UAAs where appropriate to guide placement of structural BMP solutions
 - (f) Construct structural BMP

See:

[http://www.waterboards.ca.gov/santaana/water_issues/programs/stormwater/docs/rcpermit/cbrp/CBRP_for_Riverside_Co
unty_Final_with_Attachments.pdf](http://www.waterboards.ca.gov/santaana/water_issues/programs/stormwater/docs/rcpermit/cbrp/CBRP_for_Riverside_County_Final_with_Attachments.pdf); staff report re approval of CBRPs for Riverside (and San Bernardino) counties:
http://www.waterboards.ca.gov/santaana/board_info/agendas/2012/02_10/02-10-2012_item_11.pdf

- 2) Regional treatment system proposed to be implemented at downstream terminus of Reach 1a. Responds directly to UAA results for Reach 1a and need to protect downstream REC1 use.
- 3) Discharged POTW effluent is tertiary treated (to provide essentially pathogen-free effluent), including disinfection to meet California Department of Public Health's recommendations to protect public health and primary contact recreational use.

Other Factors Considered

- 1) **Access and Safety (Section 5.6.5 UAA Analysis TC, 5.6.5.5)**
 - a) **Reach 1a and Reach 1b: All fenced; maintenance access gates locked. (see Figure TC-10)**
 - b) **Reach channel walls trapezoidal and vertical.**
 - i) **Channel considered unsafe for public access**
- 2) **Adjacent Land Use (Section 5.6.5 UAA Analysis TC, 5.6.5.6; Figure TC-11)**
 - a) **Reaches 1a and 1b: Predominately industrial and commercial.**
- 3) **In addition to the results of field and photographic surveys, adjacent land use, channel morphology, accessibility and fencing or other barriers to viewing the channel (such as vegetative cover) were considered in recommendations regarding REC2 designations. Based on this evidence, de-designation of REC2 was found appropriate for Reach 1b. Reach 1b runs through a heavily commercial/industrial area with limited public access or visibility. Channel morphology in Reach 1b (vertical walls) also severely limits wildlife habitat and viewing opportunities. REC2 is designated for Reach 1a, even though the individuals seen in the channel appeared almost exclusively to be using the channel as an access corridor to other streets.**

Summary of UAA Analysis Temescal Creek



Figure TC-3. Temescal Creek, Reach 1a. This 0.5 mile long section, between Cota Street and Lincoln Ave, is the only earthen section of Reach 1a. (UAA Analysis TC)



Figure TC-4. Temescal Creek, Reach 1a, looking upstream from Cota Street. This trapezoidal walled section of Reach 1a extends 3 miles. (UAA Analysis TC)

Summary of UAA Analysis Temescal Creek (continued)



Figure TC-13. Reach 1a. Photo of the Camera View at the REC use survey location at Main Street. (UAA Analysis TC). REC1 use is not attainable; REC2 use is attained in Reach 1a.



Figure TC-14. Reach 1a. Photo of the Camera View at the REC use survey location at City of Corona WWTP No. 2. Facing downstream. (UAA Analysis TC)

Summary of UAA Analysis Temescal Creek (continued)



Figure TC-10. Reach 1a at Cota Street, City of Corona. Access is prohibited and the channel is fenced with locked gates in all areas of Reach 1a and 1b (UAA Analysis, TC)

Summary of UAA Analysis Temescal Creek (continued)



Figure TC-15. Reach 1a. Photo of Activity from the REC use survey camera location at Main Street in the City of Corona. Of the over 11,000 photos taken at the two REC survey photo locations in Temescal Creek Reach 1a, only two images, which includes this photo, show any possible water contact with individuals. (UAA Analysis, TC)

Summary of UAA Analysis Temescal Creek (continued)



Figure TC-17. Reach 1a. Photo of Activity from the REC use survey camera location at City of Corona Waste Water Treatment Plant. This shows evidence of individuals walking/bicycling in Reach 1a section of the Channel, without water contact. These individuals appear to be using the channel as a convenient access corridor. As a result of this type of activity noted in the channel, the REC 2 use was designed for Reach 1a. The REC 1 use is not considered to have being attained. (UAA Analysis, TC)

Summary of UAA Analysis Temescal Creek (continued)



Figure TC-5. Reach 1b contains 14 ft. high vertical walls with a bottom width of 84 ft. and is approximately 3 miles in length. REC1 and REC2 uses are not attainable in Reach 1b. (UAA Analysis TC)